

CLAIMS

What is claimed is:

1. A method of fabricating an axle beam comprising the steps of:
 - a) bending a plate having a varied cross-section to form an enclosed shape with first and second segments abutting each other; and
 - b) joining the first and second segments to each other.
2. The method as recited in claim 1, wherein step a) comprises deforming the plate into a stepped cross-section from a plate having a uniform cross-section.
3. The method as recited in claim 2, wherein the plate includes a length and a width, the length greater than the width and the stepped cross-section extends longitudinally along the plate.
4. The method as recited in claim 3, wherein said step a) comprises bending the plate laterally such that longitudinal edges of the plate abut forming the enclosed shape.
5. The method as recited in claim 1, comprising attaching end assemblies to distal segments of the axle beam.
6. The method as recited in claim 1, wherein the first and second segments are of a common thickness.

7. The method as recited in claim 1, comprising third and forth segments having a thickness less than the first and second segments.

8. The method as recited in claim 1, wherein the enclosed shape includes first and second side sections, and top and bottom sections, the top and bottom sections being of a greater thickness than the first and second side sections.

9. The method as recited in claim 8, comprising abutting the first and second segments to form one of the top and bottom sections.

10. The method as recited in claim 8, comprising abutting the first and second segments to form one of the first and second side sections.

11. An axle assembly comprising:

an axle beam comprising a lateral cross-section having at least three sections forming an enclosed shape, and at least one of said at least three sections comprising a first thickness, and another section comprising a second thickness different than said first thickness; and

an end assembly disposed at distal segments of said axle beam;

12. The assembly as recited in claim 11, wherein said lateral cross-section comprises top and bottom sections having said first thickness, and first and second side sections having said second thickness.

13. The assembly as recited in claim 12, wherein said top and bottom sections, and said first and second side sections extend longitudinally along said axle beam.

14. The assembly as recited in claim 11, wherein said axle beam comprises an enclosed shape

15. The assembly as recited in claim 11, wherein said axle beam comprises a single sheet of material.

16. The assembly as recited in claim 15, wherein said sheet of material comprises first and second longitudinal segments abutted against one another to form an enclosed shape.

17. The assembly as recited in claim 11, wherein said end assembly comprises a king pin boss for supporting a vehicle wheel.